

darker colour, and the dental and cranial characters above described. *G. congicus*, Noack, is probably synonymous with *G. poensis*, the describer having been misled by Dobson's erroneous statement that the inner upper incisors of the latter species were unicuspid.

XXXV.—On a new Genus and Two new Species of African Cetoniidæ. By GILBERT J. ARROW, F.E.S.

IN a collection of Coleoptera from Mashonaland lately received from Mr. Guy A. K. Marshall is a species of Cetoniidæ of such peculiar form that it was only by a minute study of its structure that I could convince myself that it really belonged to that family of beetles. Although it proves to have a close relationship to the somewhat aberrant genus *Myoderma*, it is so far modified in outward appearance, apparently in adaptation to a highly peculiar mode of life, that there can be no doubt, I think, as to the propriety of bestowing upon it a new generic, as well as specific, name. From its assimilation in form to the Dynastid type, and especially that of the American genus *Ligyryus*, I have given it the name of

LIGYROMORPHUS.

Corpus globosum, undique setosum. Pedes breves, tarsis exiguis, tibiis anticis bidentatis, dentibus spatulatis, tibiis quatuor posticis extus grosse asperatis, medio tuberculatis, apice dilatatis. Processus sternalis nullus. Clypeus longus, excavatus, marginis antici medio paulo lobato. Labium fortiter bilobatum.

Ligyromorphus rufiventris, sp. n.

Oblongo-rotundatus, nigro-fuscus, opacus, corpore subtus cum pygidio rufis, supra undique rugoso-punctato, minutissime setoso; capite angusto, oculis parvis, clypeo excavato, marginis medio paulo producto; prothorace strigoso-punctato, lateribus valde curvatis, haud angulatis, angulis posticis obtusis, margine postico leviter trisinuato; scutello breviter triangulari, lateribus extremis politis; elytris convexis, vage costatis, lateribus fortiter et regulariter curvatis; pygidio corporeque subtus læte rufis, longe et dense fulvo-hirtis; pedibus rufo-fuscis, brevibus, tarsis brevissimis et tenuissimis, tibiis anticis dentibus duo fortibus et obtusis armatis, dente secundo mediano, tibiis quatuor posticis dense asperatis et hirtis, medio tuberculatis.

Long. 13–16 mm.

Hab. MASHONALAND, Salisbury.

The rotund form of this insect with its short, evidently fossorial, legs and clothing of hairs and setæ give it an aspect farther removed from that characteristic of its family than is shown by any other member of the group known to me. The head, with the mouth-organs, and the under surface of the body are almost as in the genus *Myoderma*, but there is no production of the mesosternum. There is no flattening of the upper surface, which is uniformly finely rugose and clothed with very short golden setæ. The sutural margins of the elytra are strongly raised and there are four other narrow costæ, sometimes hardly traceable. The pygidium and under surface are red and densely hairy. The legs are very short, with strong spiny tibiæ and thread-like tarsi, and the front tibiæ have two strong spatulate teeth. The whole structure unmistakably indicates a burrowing habit, but nothing is at present known as to the insect's manner of life. The specimens collected by Mr. Marshall were found on the wing at dusk in the month of November. They include both sexes, which do not differ externally.

The following new species of the allied genus *Myoderma* may be conveniently described here:—

Myoderma nigra, sp. n.

Nigra, nitida, depressa, clypeo quadrato, margine elevato, medio paulo lobato; prothorace crebre et grosse punctato, lateribus postice rectis, ante medium valde angulatis et retractis, angulis posticis fere acutis, margine postico lobato; scutello medio punctato; elytris subtiliter sat crebre punctatis, striatis, intervallis convexis, striis quarto et quinto postice abbreviatis, lateribus parum curvatis, apicibus ad suturam obtuse angulatis; pygidio corporeque subtus fusco-hirtis, pedibus concoloribus, tibiis anticis obtuse tridentatis, posticis quatuor medio tuberculatis; mesosterno paulo producto, antice rectangulari.

Long. 17 mm.

Hab. W. AFRICA, Mt. Cameroons.

Two male specimens of this insect were found by Sir H. H. Johnston in 1886 at an altitude of 8000–10,000 feet upon the Cameroons Mountain. It differs from all other known species of the genus by its uniform black colour and the configuration of the surface of its elytra. The latter do not exhibit rather widely separated ridges, as is usually the case, the intervals which separate the latter being in *M. nigra* themselves elevated so that the whole surface is broken up

into nearly equal costæ. The pygidium and ventral surface are rather thickly clothed with stiff brown hairs, and extremely minute hairs may be detected also upon the upper surface, but these are not at all evident.

This insect brings the number of described species of the genus *Myoderma* to eight, of which seven have been discovered since the publication of the Munich Catalogue.

BIBLIOGRAPHICAL NOTICE.

Zoological Gleanings from the Royal Indian Marine Survey Ship 'Investigator.' By A. W. ALCOCK. Simla, 1901. 4to. (Reprint from the Scientific Memoirs by Medical Officers of the Army, India. Part XII., pp. 35-76.)

MANY of the biological observations made through the medium of the 'Investigator' are buried in reports not readily accessible, and many are scattered among systematic papers where they are easily overlooked. Major Alcock therefore has thought it advisable to collect and classify them in a summary, together with other hitherto unpublished facts selected from his Journal.

Biological students are much indebted to Major Alcock for thus having brought this miscellaneous information within their reach, and we think it but right to assist him in this service to science by placing before the readers of the 'Annals' a list of the contents of this collection of observations:—

- I. Illustrations of Commensalism among: 1. Sponges; 2. Zoophytes; 3. Echinoderms; 4. Crustaceans; 5. Mollusca; 6. Fishes.
- II. Notes on Sexual Characters, Pairing, and Viviparity among Marine Animals:—
 1. Pairing and Parental Care among Echinoderms.
 2. On Secondary Sexual Characters and Pairing among Crustaceans.
 3. On certain Primary Sexual Characters in certain Bony Fishes.
 4. On certain Secondary Sexual Characters in certain Bony Fishes.
 5. On Pairing among Eels.
 6. On Viviparous Bony Fishes.
 7. On Viviparous Elasmobranch Fishes.
- III. On the Sounds made by certain Marine Animals: 1, by Crustaceans; 2, by Fishes.
- IV. Miscellaneous Notes on Stalk-eyed Crustaceans:—
 1. The early Larval Stages of *Hippa asiatica*, *Thenus orientalis*, and *Nephrops andamanica*.
 2. On some curious Habits of Land Hermit-crabs.